

SPERRY UNIVAC Universal
Distributed System 2000

Clustered Distributed
Data Capture for the Large
and Small-Scale Installation





Distributed Data Capture

Much is heard and read today about the advantages and benefits of distributed data capture, but many people are not fully convinced it has much to offer both large businesses and those dealing in a smaller scale environment. Sperry Univac has developed a product that can change that feeling.

The SPERRY UNIVAC Universal Distributed System 2000 provides the cost-effective advantages and benefits of a computer-assisted, distributed data-capture in a system of up to four workstations.

Those advantages and benefits are many . . .

- ▣ increased operator throughput
- ▣ reduced operator errors
- ▣ less need for re-transcription
- ▣ learning ease
- ▣ ease of use
- ▣ increased control
- ▣ reduced need for mainframe time

Designed specifically for small, intelligent clusters, UDS 2000 workstations combine the best flexibility and functionality features of large-scale data-capture systems. This flexibility allows the workstations to be dispersed into the departments originating the information.

With UDS 2000, data can be captured at the source—in its most efficient form—then reformatted on output to meet the input requirements of any central computer. Data being entered can be validated while the source document is still available, reducing the need for verification and mainframe edit runs.

With the UDS 2000, old-style, simple data entry can be changed to truly sophisticated distributed data capture, replacing inefficient, expensive on-line terminals, key/disk clusters, key-tape and key-diskette stations, keypunches, hand-file systems and other remote data entry devices.

Flexibility is provided to meet most data-capture applications, and to provide the means for system growth as business grows. Some of the capabilities are: field-end validation, user programmability, full keyboard buffering for keystroke efficiency—and, above all, the Worldwide Sales and Service support of Sperry Univac.



Large-Scale Savings with a Cluster System

The same development excellence that resulted in the SPERRY UNIVAC 1600, 1700, 1800 and 1900 Systems for EDP environments has now produced the UDS 2000 for the small cluster user. That means state-of-the-art sophistication—and savings.

The savings accrue in at least six ways, through:

- reduced keystrokes
- reduced verification
- reduced media costs
- eliminated transcriptions
- reduced errors
- reduced need for mainframe time

Keystrokes are reduced by many special features. For example, key-entering a stock number alone on the UDS 2000 can automatically enter price and description without operator intervention. The number of format levels provided assures operators need not key source data more than once, even when creating multiple-output files. This data duplication from record to record for extended source documents can help eliminate the need for verification, while reducing keystrokes.

The need to verify is further reduced by the automatic data validation features of the UDS 2000. Only selected fields and those with errors need to be keyed or sight-verified. And all data which was automatically derived from a field, such as stock numbers, is automatically corrected when that field is corrected.

The reusable diskettes and magnetic tape used with the UDS 2000 can help media costs significantly. For example, an operator producing 1700 records a day completes some 34,000 records per month. The eliminated cost for cards alone is about \$60 per operator per month—and certainly will go higher.

Eliminating the need for re-transcription is perhaps the largest single opportunity for savings derived from a distributed data-capture system—simply because it is a labor-intensive operation. When data capture is performed directly in the source department via a workstation, the need to fill in a form and enter it at a central station is eliminated.

Reduced errors—and reduced costs associated with correcting errors—are important UDS 2000 benefits. Because it validates data at input time, the UDS 2000 gives double savings: it reduces the need for mainframe validation runs and, even more importantly eliminates the costly time needed to find the source document, contact the source department, re-key, re-verify, and re-run edits. As a result, when the operator effective rate is increased, through data insertion, extension and price calculations, more savings are realized.





**Easy to Install, Easy to
Learn, Easy to Use**

Because the UDS 2000 is a product of Sperry Univac, it is backed by a worldwide marketing and service organization noted for its excellence. That means installation and start-up with a minimum of delay: benefits of distributed data-capture will be realized quickly.

One of those benefits will be a greater tolerance for operator turnover and the lack of experience. The UDS 2000 is designed to be easy to learn, easy to use, even by personnel without previous experience.

Ease of learning and use begins with the keyboard designed in the familiar typewriter, keypunch or adding machine style. It continues with operator assists, including displays, alarm, error messages, field-name and extensive error-detection capabilities.

The UDS 2000 is programmable, which will allow a user to balance, crossfoot skip fields contingent upon variables, duplicate and generate information without key entry. That programming activity is easy: format and output programs are prepared on easy-to-use coding sheets, using check boxes and simple statements.



At the same time, the UDS may be programmed at a higher level via COBOL subset by the more experienced data-processing professional. In any event, no systems-level reprogramming is needed.





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BATCH STATISTICS

BATCH - DATA08	PROGRAM - FREEFORM
RECORDS - 0623	REG 1
KEYSTROKES - 00107	REG 2
ERRORS - 0000	REG 3
TIME USED - 00:00:40	REG 4

WORKSTATION

CLEAR



Inside the UDS 2000— Flexibility and Functionality

The SPERRY UNIVAC UDS 2000 makes the most sophisticated technology in data capture available to the large- or small-scale data processing user.

It is a diskette-based microprocessor system with multiple operating modes for entering, validating, updating, searching, printing and communicating information.

It gives the flexibility and functionality needed for distributed data capture in almost any business environment.

In the UDS 2000, up to four keystations share a microprocessor with more power than was available in many mainframes just a few years ago. Processor power to validate data as it is keyed and power to compare keyed data to diskette-resident tables even while communicating previously recorded data to the host computer and printing returned results.

The system controller, located in the master workstation, contains 32K bytes of monolithic memory easily expanded for sophisticated applications. It features extensive hardware error checking and retry capabilities to increase reliability.

Each workstation functions as both operator console and key entry station—a full-function device including video screen, keyboard and one or two diskette drives. The keyboard is compact, familiar, designed for high-speed efficiency and available in three styles (typewriter, adding machine and keypunch) in most languages. The CRT can display up to 512 characters, formatted into 8 lines of 64 characters each.

Two diskette drives may be included at each workstation, either single or double density or one of each. The diskettes are the standard 8-inch type in the industry standard configuration—74 data tracks, an index track, two replacement tracks for fixed-length 128 character data records. A double-density diskette for 256-character records is also available.





The UDS 2000 Can Expand and Meet Future Needs

The UDS 2000 is much more than workstations and processor. It has a full range of peripheral devices to meet total data-handling needs. It is capable of growth and change to meet most business needs. Expansion of memory is only the beginning.

The UDS 2000 can communicate in several protocols: SPERRY UNIVAC U100 in a batch mode, or bi-sync including 2780, 3780 and 3741 emulations. Future enhancements include the UDLC protocol so that the UDS 2000 can participate in networks just being developed.

With the UDS 2000 printer peripherals, a character printer is available for low-volume or logging output, a line printer for higher volumes and report-type output, and a correspondence-quality printer for the important jobs going to customers or management, requiring this type of quality printing.

Magnetic tape is provided as an interchange media—useful as a backup or for data input. 9-track capability, 800 NRZI or 1600 phase-encoded, and standard tape labels. The translation can be EBCDIC or ASCII, with 7-inch, 600-foot reels or smaller. Cost is down and performance up with this capability.

If there is a continuing need for punched-card input/output, the UDS 2000 can do that too. It can interface with the SPERRY UNIVAC 1700 series for reading or output punching, or with our small card reader for input only. The UDS 2000 can even take some jobs off the central computer and provide more efficient input media while making the punch available as a freestanding device for those wishing to punch up their own jobs.

Even though these peripherals are made available with the UDS 2000, each of its workstations is still functionally independent. One can run a print job while another is communicating and a third can be controlling card input while another is being used for key entry. The UDS can handle it all, concurrently. More systems can easily and quickly be added as growth demands.



The Advantages of . . .



Field end processing is only possible with processor power—and the UDS 2000 has it. It validates on a keystroke-by-keystroke basis and executes the remainder of its programmed instructions on each field as that field is completed. Operator or data errors are detected at once, and signalled by alarm. So operators need not turn back a document, reorient, break keying rhythm, reposition the cursor, or even look up.

Field names, as available on the UDS 2000, are a big improvement over no identifier or fill-in-the-blanks big-screen presentation. The single-word item name—such as ADDRESS, PART NUMBER or LAST NAME—tells the operator which entry to input, and does it quickly and more simply than following unfamiliar screen formats.

Clustered but functionally independent workstations offer two benefits: shared peripherals, plus full use of peripherals on demand. Any workstation can perform any on-line task, without impacting the function selection of any other station, except as it has gained control of the peripheral device.

User Programability is another advantage of the UDS 2000. In addition to the very powerful check box programming which will serve many of the user's needs, there is also the Procedural Language of the system. A COBOL subset that requires no special translator or extra cost equipment. With this language, the user can make the system fit his unique applications.

Security is designed into the UDS 2000 to protect the data. No keystation failure, for example, can disable the UDS 2000 system. Keystations can be quickly changed without any interruption to operations.

Sperry Univac service, available all over the world, compliments our reputation for excellent reliability.





Lower Over-All Data-Capture Costs

Total data-capture economy is what a distributed data-capture system is all about. And that's what the UDS 2000 is all about. It requires a different way of looking at business data-capture operations—decentralizing them—bringing them in line with the realities of today and tomorrow.

The UDS 2000 gives the hardware and software sophistication needed to take advantage of a number of significant distributed data-capture benefits like keystroke savings, increased throughput, reduced errors, reduced time to correct errors, ease of learning and use, and lower need for mainframe time, because many of the mundane tasks can now be done on the UDS 2000.

The UDS 2000 gives the power to capture and validate data at its source, with speed and flexibility. Use it as a network, or use it as a stand-alone workstation. Use it for remote job entry, remote data collection, centralized data entry, decentralized data capture or as a remote terminal.

The UDS 2000 gives the user the power, capability and flexibility previously economical only for the mainframe user. It gives what is needed.

It also offers the worldwide support of Sperry Univac, the pioneer in all phases of data-capture and data processing—the company of the future that still has its determination to serve a traditional virtue: helping the customer succeed.

